

**AMENDMENTS TO THE CLAIMS**

**This listing of claims will replace all prior versions and listings of claims in the application:**

**LISTING OF CLAIMS:**

1. (currently amended) A communications network for exchanging data packets (P) of ATM connections, which is hierarchically constructed, the communications network comprising:

~~such that in a lowest network level (L1) having a plurality of network nodes (A.1.1, ..., C.2) are provided and each are,~~ the plurality of lowest network level network nodes are each directly or indirectly connected, by at least one possible physical path, ~~on the one hand to~~ terminal devices and ~~on the other hand to every other network node of this the lowest network level, that in;~~ and

higher network levels having (L2, L3) network nodes (A.1, ..., A.4, ..., B.2; A, B, C) are ~~provided which,~~ the higher network level network nodes each are administratively responsible for a group ~~(PGA1, ..., PGA4, ..., PGB2, PGA, PGB, PGC)~~ of network nodes situated in an underlying lower network level,

~~and that wherein~~ each network node ~~(e.g. A.1) situated in a one of the higher network level levels~~ is physically connected to at least one network node and logically connected to every other network node, (A.1.1) of the group of network nodes situated in the underlying lower

network level for which ~~it~~ the higher network level network node is responsible ~~and is logically~~  
~~connected to every other network node (A.1.2, A.1.3) of this group (PGA1),~~

~~and wherein the higher network level network node is physically or logically connected~~  
to every other network node ~~(A.2, A.3, A.4) of the~~ a group of higher network level network  
nodes to which ~~it~~ the higher network level network node itself belongs,

~~in which communications network wherein each network node (e.g. A.1) of a higher~~  
network level network node ~~is responsible for providing that provides~~ each network node ~~(A.1.1,~~  
~~A.1.2, A.1.3) of a lower network level for which it~~ each higher network level network node is  
responsible, ~~can when necessary use the connection data which it~~ the lower network level  
network node requires to determine ~~the~~ path information for the data packets of a concrete ATM  
connection in ~~this~~ the communications network, and

~~and in which communications network further comprising a data bank (DB), in which~~  
connection data are kept available, ~~is arranged in~~ each network nodes node of a the lower  
network level,

~~characterised in that wherein each the~~ data bank in ~~a~~ each lower network level network  
node ~~of a lower network level (L1) keeps available connection data for a closer environment, the~~  
closer environment defining network nodes in one group (PGA1, ..., PGA4, ..., PGC),

~~that wherein~~ at least one additional data bank ~~(RSA1, ..., RSC), which keeps available~~  
connection data for a wider environment, is provided and assigned to a network node of the

lower network level, the wider environment defining all network nodes and groups of network nodes, and

~~that wherein a network node of a higher network level (e.g. A.1), which is responsible for~~  
~~a the network node (A.1.1) to which an the at least one additional data bank (RSA1) is assigned,~~  
also comprises means ~~(Contr, RA)~~ for maintaining the connection data in ~~this the~~ additional data bank.

2. (currently amended)      A method for making ~~available~~ connection data available for determining path information ~~(PI)~~ for ~~the~~ data packets ~~(P)~~ of ATM connections in a communications network which is hierarchically constructed such that in a lowest network level, ~~(L1)~~ a plurality of network nodes ~~(A.1.1, ..., C.2)~~ are provided and each are connected directly or indirectly, by at least one possible physical path, ~~on the one hand~~ to terminal devices and ~~on the other hand~~ to every other network node of ~~this the lowest~~ network level, ~~that in and in~~ higher network levels, ~~(L2, L3)~~ network nodes ~~(A.1, ..., A.4, ..., B.2; A, B, C)~~ are provided, ~~which the~~ higher network level network nodes each are administratively responsible for a group ~~(PGA1, ..., PGA4, ..., PGB2, PGA, PGB, PGC)~~ of network nodes situated in an underlying lower network level, and ~~that~~ each network node ~~(e.g. A.1)~~ situated in a higher network level is physically connected to at least one network node and logically connected to every other network node (A.1.1) of the group of network nodes situated in the underlying lower network level for which it the higher network level network node is responsible ~~and is logically connected to every other~~

~~network node (A.1.2, A.1.3) of this group (PGA1), and is physically or logically connected to every other network node (A.2, A.3, A.4) of the a group of higher network level network nodes (PGA) to which it the higher network level network node itself belongs, the method comprising:~~

~~in which method each network node (e.g. A.1) of a higher network level is responsible for providing that each network node (A.1.1, A.1.2, A.1.3) of a lower network level for which it is responsible can when necessary use the connection data which it requires to determine the path information (PI) for the data packets (P) of a concrete ATM connection in this communications network providing, when necessary, connection data, from a higher network level network node to a lower network level network node, the connection data for determining path information for the data packets of a concrete ATM connection,~~

~~and in which method in network nodes of a wherein lower network level connection data are kept available in a data bank (DB),~~

~~characterised in that wherein the each data bank (DB) in a network node of a lower network level keeps available connection data for a closer environment, the closer environment defining network nodes in one group,~~

~~that wherein at least one additional data bank (RSA1, ..., RSC), which keeps available connection data for a wider environment, is accessible to and assigned to a network node of the lower network level, the wider environment defining all network nodes and groups of network nodes, and~~

~~that wherein a network node of a higher network level, (A.1) which is responsible for a network node (A.1.1) to which an~~ at least one additional data bank ~~(RSA1)~~ is assigned, is also responsible for maintaining the connection data in ~~this~~ the at least one additional data bank.

3. (currently amended) A method for determining path information ~~(PI)~~ for the data packets ~~(P)~~ of ATM connections in a network node ~~(e.g. A.1.2)~~ of a communications network which is hierarchically constructed such that in a lowest network level, ~~(L1)~~ a plurality of network nodes ~~(A.1.1, ..., C.2)~~ are provided and each are connected directly or indirectly, by at least one possible physical path, ~~on the one hand~~ to terminal devices and ~~on the other hand~~ to every other network node of ~~this~~ the lowest network level, ~~that in~~ and in higher network levels, ~~(L2, L3)~~ network nodes ~~(A.1, ..., A.4, ..., B.2; A, B, C)~~ are provided, ~~which the higher network level network nodes~~ each are administratively responsible for a group ~~(PGA1, ..., PGA4, ..., PGB2, PGA, PGB, PGC)~~ of network nodes situated in an underlying lower network level, and ~~that each network node (e.g. A.1) situated in a higher network level is physically connected to at least one network node and logically connected to every other network node (A.1.1) of the group of network nodes situated in the underlying lower network level, for which it the higher network level network node is responsible and is logically connected to every other network node (A.1.2, A.1.3) of this group (PGA1), and is physically or logically connected to every other network node (A.2, A.3, A.4) of the a group of network nodes situated in the higher network level (PGA) to which it the higher network level network node itself belongs, in which method, the method comprising:~~

~~from this network node belonging to a lower network level, connection data are called up~~  
~~from a data bank (DB) assigned to the network node~~requesting connection data from a data bank  
assigned to a lower network level network node,

~~characterised in that the~~wherein, if the requested connection data ~~which cannot be called~~  
~~up~~is not available from the data bank ~~(DB)~~ assigned to the lower network level network node  
(A.1.2), ~~are called up from~~the connection data is requested from an additional data bank ~~(RSA1)~~  
which is assigned to another lower network level network node ~~(A.1.1)~~.

4. (currently amended) Network nodes ~~(A.1.2, ..., C.2)~~ for a lower network level  
(~~L1~~) of a communications network, which is hierarchically constructed, such that in a lowest  
network level (~~L1~~) a plurality of network nodes ~~(A.1.1, ..., C.2)~~ are provided and each are  
connected directly or indirectly, by at least one possible physical path, ~~on the one hand~~ to  
terminal devices and ~~on other hand~~ to every other network node of ~~this~~ the lower network level,  
~~that in and in~~ higher network levels, (~~L2, L3~~) network nodes ~~(A.1, ..., A.4, ..., B.2; A, B, C)~~ are  
provided, ~~which~~ the higher network level network nodes each are administratively responsible  
for a group ~~(PGA1, ..., PGA4, ..., PGB2, PGA, PGB, PGC)~~ of network nodes situated in an  
underlying lower network level, ~~and that~~ each network node ~~(e.g. A.1)~~ situated in a higher  
network level is physically connected to at least one network node and logically connected to  
every other network node (A.1.1) of the group of network nodes situated in the underlying lower  
network level for which ~~it~~ the higher network level network node is responsible ~~and is logically~~

~~connected to every other network node (A.1.2, A.1.3) of this group (PGA1), and is physically or~~  
logically connected to every other network node ~~(A.2, A.3, A.4) of the~~ a higher network level  
~~group (PGA) to which it~~ the higher network level network node itself belongs, the lower network  
level network node comprising:

~~in which network node~~ a data bank ~~(DB)~~ is provided in which connection data are kept  
available,

~~characterised in that~~ wherein the data bank ~~(DB)~~ keeps available connection data for a  
closer environment, the closer environment defining network nodes in one group, and

~~that wherein~~ the network node comprises interrogation means ~~(RA)~~ by which the  
connection data for a wider environment can be called up from an additional data bank  
~~(RSA1, ..., RSC)~~ which is assigned to another lower network level network node, the wider  
environment defining all network nodes and groups of network nodes.

5. (currently amended) A network node ~~(A.1.1, ..., C.1)~~ for a lower network level  
~~(L1)~~ of a communications network, which is hierarchically constructed, such that in a lowest  
network level, ~~(L1)~~ a plurality of network nodes ~~(A.1.1, ..., C.2)~~ are provided and each are  
connected directly or indirectly, by at least one possible physical path, ~~on the one hand~~ to  
terminal devices and ~~on the other hand~~ to every other network node of ~~this~~ the lowest network  
level, ~~that and~~ in higher network levels, ~~(L2, L3)~~ network nodes ~~(A.1, ..., A.4, ..., B.2; A, B, C)~~  
are provided, ~~which~~ the higher network level network nodes each are administratively

responsible for a group (~~PGA1, ..., PGA4, ..., PGB2, PGA, PGB, PGC~~) of network nodes situated in an underlying lower network level, and ~~that~~ each network node (~~e.g. A.1~~) situated in a higher network level is physically connected to at least one network node and logically connected to every other node (A.1.1) of the group of network nodes situated in the underlying lower network level for which ~~it~~ the higher network level network node is responsible ~~and is logically connected to every other network node (A.1.2, A.1.3) of this group (PGA1) and is physically or logically connected to every other network node (A.2, A.3, A.4) of the a group of higher network level network nodes (PGA) to which it the higher network level network node itself belongs, ~~in which network node~~ the lower network level network node comprising:~~

a data bank (~~DB~~) ~~is provided~~ in which connection data are kept available,

~~characterised in that~~ wherein an additional data bank (~~RSA1, ..., RSC~~), which keeps available connection data for a wider environment, is provided and is assigned to ~~this~~ the lower network level network node or connected to the data bank (~~DB~~) provided in ~~this~~ the lower network level network node, and

wherein ~~that~~ the lower network level network node further comprises means (~~RA~~) whereby connection data from the at least one additional data bank can be emitted to other network nodes upon request.

6. (currently amended)      Network nodes (~~A.1, ..., B.2; A, B, C~~) for a higher network level (~~L2, L3~~) of a communications network, which is hierarchically constructed, such that in a



lowest network level, ~~(L1)~~ a plurality of network nodes ~~(A.1.1, ..., C.2)~~ are provided and each are directly or indirectly connected, by at least one possible physical path, ~~on the one hand to~~ terminal devices and ~~on the other hand~~ to every other network node of this network level, ~~that~~ and in higher network levels, ~~(L2, L3)~~ network nodes ~~(A.1, ..., A.4, ..., B.2; A, B, C)~~ are provided, ~~which the higher network level network nodes~~ each are administratively responsible for a group ~~(PGA1, ..., PGA4, ..., PGB2, PGA, PGB, PGC)~~ of network nodes situated in an underlying lower network level, and ~~that~~ each network node ~~(e.g. A.1)~~ situated in a higher network level is physically connected to at least one network node and logically connected to every other network node (A.1.1) of the group of network nodes situated in the underlying lower network level, for which ~~it the higher network level network node~~ is responsible ~~and is logically connected to every other network node (A.1.2, A.1.3) of this group (PGA1)~~, and is physically or logically connected to every other network node (A.2, A.3, A.4) of the a group of higher network level network nodes (PGA) to which it the higher network level network node itself belongs, the higher network level network node comprising:

~~characterised in that the network node comprises means (Contr, RA) for supporting the~~ an exchange of connection data between data banks (DB) in network nodes of the underlying network levels for which ~~this the higher network level network node~~ is responsible, and

means for supporting an exchange of connection data between data banks (DB) in other network nodes of the underlying network levels, for maintaining the connection data as respective stored data.

7. (currently amended) A communications network according to Claim 1,  
~~characterised in that~~wherein the lower network level<sub>1</sub> whose network nodes each are provided  
with a data bank in which connection data for a closer environment are kept available<sub>1</sub> is the  
lowest network level~~(L1)~~.

8. (currently amended) A communications network according to Claim 7,  
~~characterised in that~~wherein the closer environment is ~~the~~ a region of ~~that the~~ group ~~(e.g. PGA1)~~  
to which the respective lower network level network node ~~(A.1.1, ..., A.1.3)~~ belongs.

9. (currently amended) A communications network according to Claim 8,  
~~characterised in that~~wherein at least one additional data bank ~~(RSA1, ..., RSC)~~ is provided in  
each ~~group~~ of a plurality of groups of network nodes of the lowest network level~~(L1)~~.

10. (new) A communications network comprising:  
  
network nodes in a lower network level;  
  
a data bank, provided in each network node in the lower network level, in which  
connection data for a closer environment is stored; and

an additional data bank, assigned to at least one of the network nodes in the lower network level, in which connection data for a wider environment is stored.